

DAISY Multimedia for Children with Reading Disabilities Including Dyslexia in Japan

Misako Nomura

Director, Information Center

Japanese Society for Rehabilitation of
Persons with Disabilities



DAISY& Japanese Society for Rehabilitation of Persons with Disability(JSRPD)

- 1998-2001: Introduction of DAISY to Persons with Disabilities in Japan
- 2002~
- ◆ Starting making research on DAISY multimedia for persons with intellectual and cognitive disabilities funded by the Government
- ◆ Providing Information about dyslexia and other reading disabilities and DAISY through our website
- ◆ Providing free DAISY player software and authoring tool and training of DAISY production to non-profit organization
- ◆ Production of samples of DAISY multimedia books
It was not well disseminated before 2008 because of copyright law.

Solving the Copyright Law in Japan after 2008

□ Sept 2008

Enforcement of so called “ Accessible Textbooks Act”

Enforcement of Amendment of Copyright Law

DAISY multimedia textbooks can be produced and provided for pupils with reading problems, obtaining data of textbooks from publishers

□ January 2010

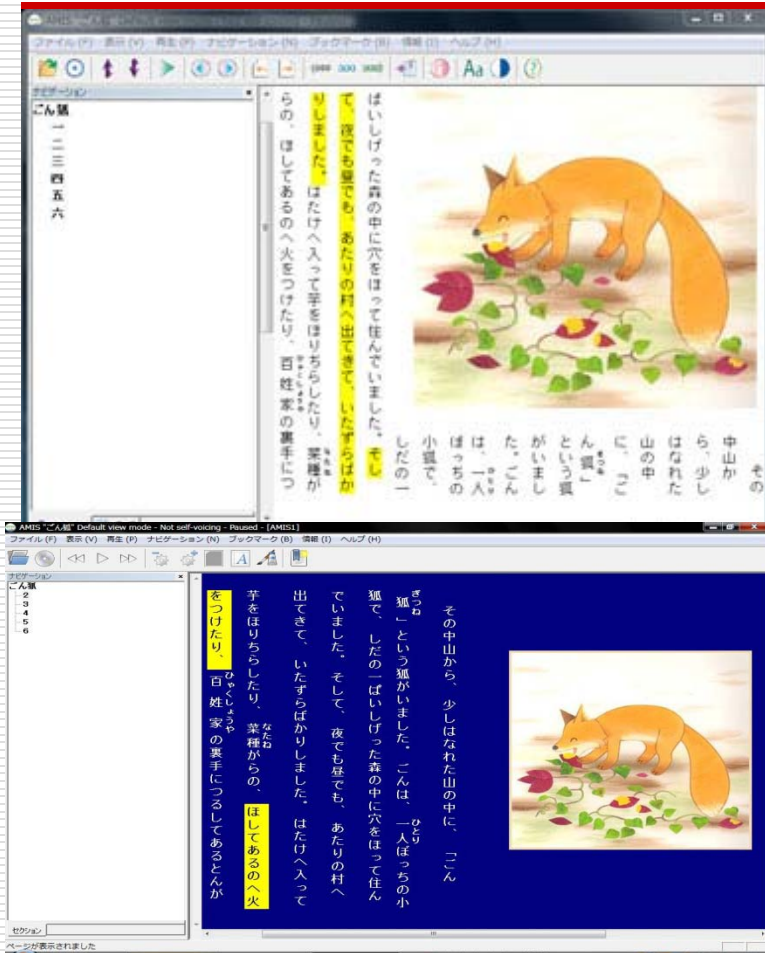
Enforcement of amendment of Copyright Law

Any DAISY books can be produced for persons with disabilities (not only persons with visual impairment, but also other disabilities such as developmental disorder)without permission from publishers and downloaded by those people

Provision of Textbooks in DAISY Multimedia for Children with reading problems

- ❑ JSRPD started producing and providing the target children in 2008 in cooperation with volunteer DAISY Production Groups.
- ❑ Target : LD(dyslexia), ADHD, Autism, low vision, blindness, CP, physical disabilities and so on from elementary to Junior high school
- ❑ Users belong to: Special Education Class, Special Education School, Regular Class, Regular Class + Special Education Room(resource room)
- ❑ Aim: Individual learning (special education room), studying at home (by oneself or with parents), preparation for exams and in a regular Class
- ❑ Distribution: CD-ROM or downloading service(after 2010)
- ❑ subjects of textbooks : Japanese, Social Studies, Science, Math, Japanese History, English, Civics

Multi-media DAISY books



- Navigation
- Synchronization of highlighted text ,audio and pictures
- Vertical writing and ruby are available
- Read books in your own style using devices and software to play it.
(change of font, speed and contrast)

Production of DAISY Multimedia

- Production focusing on the following
 - ◆ Speed
 - ◆ Highlight: word or sentence
 - ◆ Audio: human voice or TTS
 - ◆ Layout: Ruby, Vertical or horizontal writing, image, footnote
 - ◆ Devices: PC, iphone, iPad, specialized devices
 - ◆ With the combination of easy-to-read concept
 - ◆ Feedback from teachers and children through the mailing list and by conducting survey once a year

— We still need further research ! —

Use Cases and its Outcome

- ❑ Special Education Class (intellectual disabilities)
“Highlighted text keeps user’s attention”
- ❑ At Home
“ Can Learn textbook repeatedly without any help from mother”
- ❑ In a regular class (use of textbooks and exams questionnaires in DAISY multimedia)
“ Can study with others”

more information please refer to:

http://www.dinf.ne.jp/doc/english/access/12csun/csun2012_nomura.html

Survey of Parents and teachers about Users

- In total, over 70% of teachers and parents answered “Strongly agree” or “Partially Agree” to the following comments on the efficacy of DAISY textbooks. (214 out of 514 responded as of Feb.2012)
 - * Reluctance, sense of inferiority and psychological burden when reading have decreased.
 - * More interest in studying with DAISY than printed textbooks
 - * Less misreading
 - * Can read in his/her own initiative
 - * Improve the ability to read and understand
- Challenges : more efforts to reach more necessary children such as dyslexia (no official investigation, but estimated 2.5 % per regular class according to the survey of regular teachers in 2002)

Support and Action by publica Libraries

Corner for DAISY Multimedia Books
From Choufu City Library



Room for DAISY Multimedia books
From Yamaguchi Prefectural Library



Message from the Father of a Child with Dyslexia in Norway



“A school library supporting dyslexic kids with DAISY books, would mean a lot for those Children as well as their adulthood.

In my mind, the IFLA guidelines for school libraries should be revised accordingly.”

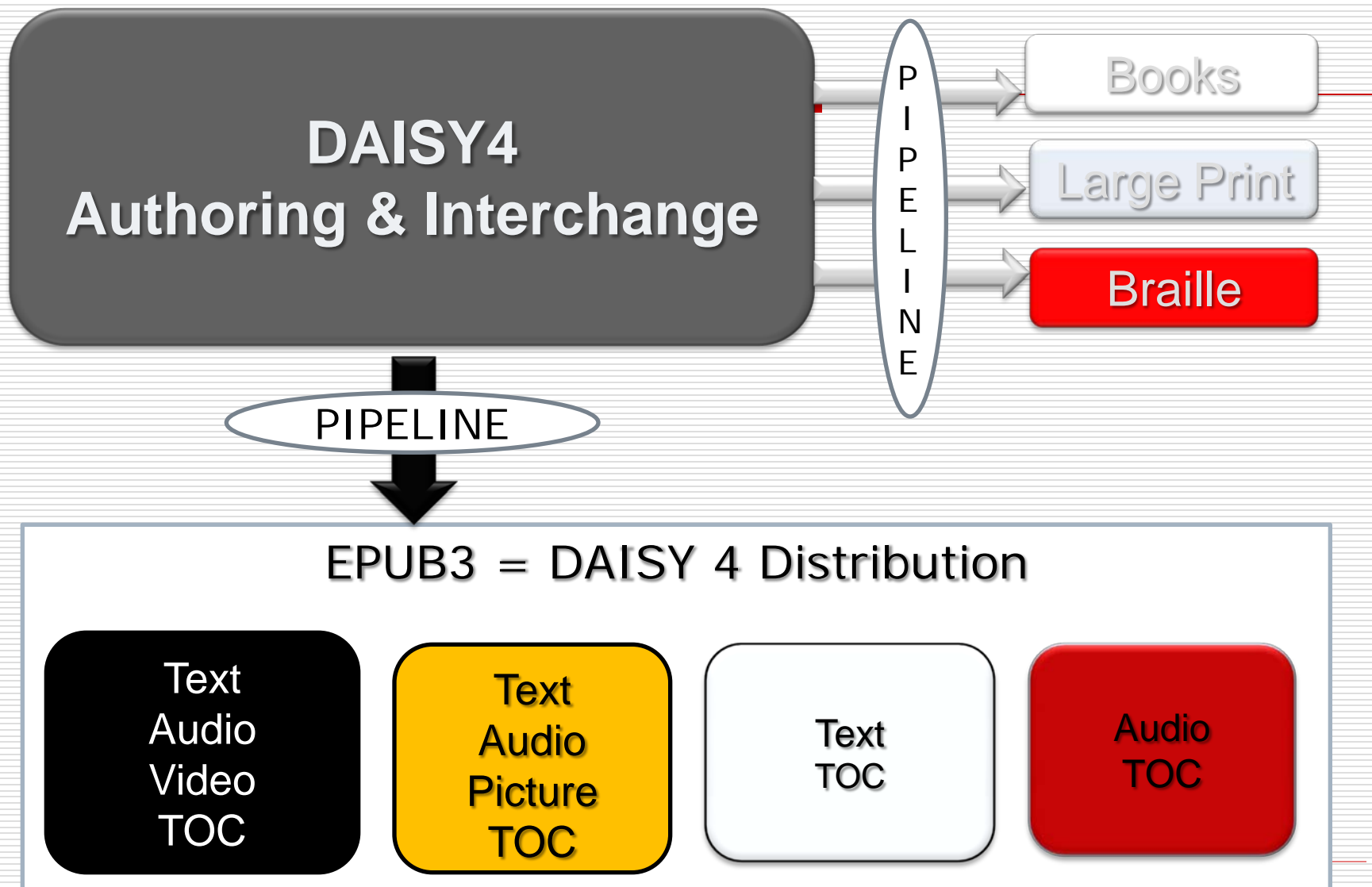
Latest Development:

Accessibility of DAISY was Built into EPUB 3

- ❑ EPUB is an open, industry-driven e-book format released by IDPF(International Digital Publishing Forum) and supported by Sony, iBooks. Barnes & Noble and Google and so on.
- ❑ With EPUB 3 (as with DAISY 4) the structure and meaning of the content are connected. EPUB 3 consists of HTML5, including support for rich media such as audio and video, interactivity, international language support (including vertical scripts), styling and layout enhancements, SVG, MathML, and synchronization of audio with text. So accessibility of DAISY was built into EPUB 3.
- ❑ Radium Project led by IDPF and DAISY Consortium.
A focus is the use of Media Overlays 3.0 which is a feature of DAISY multimedia

DAISY4 and EPUB3 integration

Form Mr. Hiroshi Kawamura's presentation



Tokyo International Book Fair held in July 2012



Conclusion

- ❑ DAISY multimedia is very effective for users to read and understand textbooks due to multimodal presentation.
- ❑ DAISY multimedia textbooks have to be distributed to children with reading disabilities as reasonable accommodation.

“Reasonable accommodation” means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms; excerpts from Article 2 of CRPD”

- ❑ Schools and public Libraries should play an important role to promote DAISY multimedia for supporting those children at school.